INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/032106

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L1/06 H04B7/08 H04B7/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04B H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/108117 A1 (HOWARD STEVEN J ET AL) 12 June 2003 (2003-06-12) abstract; claims 1,5,17,23,36,38; figures 1-4b paragraph '0011! - paragraph '0014! paragraph '0024! - paragraph '0053! paragraph '0067! paragraph '0096! - paragraph '0141! -----	1-34
X	US 2003/185310 A1 (BJERKE BJORN A ET AL) 2 October 2003 (2003-10-02) abstract; claim 29; figures 2-5 paragraphs '0004! - '0039! paragraphs '0064!, '0101!, '0141!, '0172! -----	1-34

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
17 December 2004	11/01/2005

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Katruff, M

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International Application No
PCT/US2004/032106

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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P,X	US 2004/042556 A1 (KETCHUM JOHN W ET AL) 4 March 2004 (2004-03-04) paragraph '0010! - paragraph '0131!; figures 3-5	1-34
A	JOONSUK KIM ET AL: "Transmission Optimization with a Space-Time Filter at Low SNR Wireless Environment" GLOBECOM 1999, vol. 1B, 5 December 1999 (1999-12-05), pages 889-893, XP010373673 the whole document	1-34
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A	BURR A G: "Adaptive space-time signal processing and coding" IEEE 2000, vol. 2, 22 October 2000 (2000-10-22), pages 710-714, XP010531996 the whole document	1-34
A	HWANG J-K ET AL: "PERFORMANCE ANALYSIS OF MIMO-MMSE-DFE MULTIUSER RECEIVER FOR TDMA MOBILE SYSTEMS WITH SPATIAL DIVERSITY" VTC 2001 SPRING. IEEE VTS 53RD. VEHICULAR TECHNOLOGY CONFERENCE. RHODES, GREECE, MAY 6 - 9, 2001, IEEE VEHICULAR TECHNOLGY CONFERENCE, NEW YORK, NY : IEEE, US, vol. VOL. 1 OF 4. CONF. 53, 6 May 2001 (2001-05-06), pages 142-146, XP001066937 ISBN: 0-7803-6728-6 the whole document	1-34
A	US 6 377 631 B1 (RALEIGH GREGORY G) 23 April 2002 (2002-04-23) column 16, line 8 - column 19, line 6; figures 13,14,16,25	1-34

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